

Webster (Jas)

Sterling

LECTURE:

INTRODUCTORY TO THE COURSE

ON

ANATOMY AND PHYSIOLOGY,

IN

GENEVA MEDICAL COLLEGE,

OCTOBER, 1840,

BY

JAMES WEBSTER, M. D.,

*Professor of Anatomy and Physiology in Geneva Medical College; Corresponding
Member of the Medical Society of London, &c. &c.*

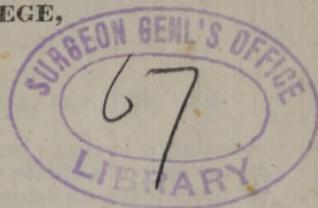
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GENEVA, OCT. 12, 1840.

To

PROF. JAMES WEBSTER.

Dear Sir,—The undersigned, committee in behalf of the Medical class, believing that the publication of your introductory address would promote the cause of science, unfolding, as it does, the object, and importance of a thorough knowledge of Anatomy to the Physician and Surgeon, and the motives that should actuate every student in its cultivation; and believing also, that it would advance the interests of our Alma Mater and the profession generally, respectfully solicit of you a copy for that purpose.

Accept assurances of our regard,

JOSEPH D. FORD, }
ASA W. TUPPER, } *Committee.*
GEO. N. BURWELL, }
F. R. BENTLEY, }
HENRY W. DEAN, }

GENEVA, OCT. 13th, 1840.

GENTLEMEN,

Your flattering letter, asking on behalf of the Class, a copy of my introductory address, has been received—and in cheerfully acceding to your request, whilst I think it proper to state that it was not intended for publication, I do not feel at liberty to refuse, if it will afford any gratification to those in whom I take so deep an interest.

Most sincerely,

Yours, &c.,

JAMES WEBSTER.

To

Messrs. JOSEPH D. FORD, }
ASA W. TUPPER, } *Committee*
GEO. N. BURWELL, } *of Medical Class,*
F. R. BENTLEY, } *Geneva College.*
HENRY W. DEAN, }

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LECTURE.

GENTLEMEN:—

The year that has passed, marks a new and eventful era in the history of the Medical Department of Geneva College, and upon the opening of this session, we enter upon the discharge of our important duties, with renewed energy, with increased vigilance, with redoubled effort, and we unfurl our banner to the breeze, bearing upon its broad and ample folds, the motto, "In union there is strength."

Before entering upon the immediate object for which we have now met ; in view of the powerful accession of talent, skill, and experience, which are destined to shed so bright a lustre over the hopes and prospects of our Institution, permit me, gentlemen, to congratulate you, that you will be enabled to participate in the advantages thus offered, and to reap the benefits which must inevitably result from the union of the forces of the Fairfield and Geneva schools.

Another circumstance of particular interest at this moment, is the harmonious meeting of so large a portion of the pupils of both Institutions, on one common ground,—actuated by one common impulse,—and each determined

to vie with the other in the acquisition of that knowledge which is hereafter to lead you forth as the heralds of our success, whilst you are dispensing the blessings of health and happiness, whether in the palace of the wealthy, or in the humble abode of penury and want.

Feeling, then, in common with my old and long-trying associates, that much depends upon our exertions to sustain us in our relations with our new colleagues, some of whom have for years, stood in the first ranks of the profession, and who are regarded with affection and respect by the numerous Alumni of the Institution they have left, and which they so powerfully and so long sustained, whilst rival Institutions were growing up around them ; whose names are as familiar as household-words to the Medical Profession of Western New-York, and whose ability and success as teachers of their several branches, have given them an enviable reputation among the distinguished men of our country—I say, we cannot, or rather, I may speak for myself, when I say, we cannot but feel that our responsibilities to you and to ourselves are greatly increased, whilst we trust that our exertions will be proportionate to the exigency, and so directed as to give force and efficiency to every means within our reach, that we may be enabled to send you from our walls, on the completion of your collegiate course, bearing its honors with you as your ready passport to professional distinction and success,—whilst the steady light of your increasing reputations shall be reflected back upon your Alma Mater, shedding a halo around it, alike honorable to preceptor and to pupil.

This day, to many of you, marks an epoch in your lives, which will long be remembered ; it is to many of you, as you suppose, freedom's jubilee : the dawn of manhood, (and oh ! may the bud of promise ripen to the per-

fect fruit,) ushers you upon a new scene in the great drama of human life; the restraints of boyhood have been relaxed — the parental home has been left, and you are about entering upon the pursuit of that knowledge which is soon to entitle you to take the station in society which shall be assigned to you. Have you well and duly reflected upon the importance of your position, and are you prepared to bend all the energies of your mind in order fully to realize your own anticipations, and the fond and cherished hopes of parents and friends? If you have, and I will not doubt it, then indeed may you look forward with pleasing anticipations of the future; then will the toils and labors which will be required to fit you for the high responsibilities of an arduous profession, be converted into an easy task; then may you calculate with unerring certainty for an ample recompense in after life, to be found in the approving smiles of the wise and the good; and finally, when after a long and virtuous life, you too must fall the prey of the destroyer with whom you shall for years have been combating, you will be prepared for the higher and the holier destiny which awaits you.

An Introductory Lecture, gentlemen, is, in its very nature, desultory; it is a means of acquaintance at first sight; it may, or it may not, be confined to a review of the objects and intentions which are to occupy our time and attention for a lengthened period. I shall, therefore, at this time, endeavor to throw out a few suggestions which have arisen in my mind, growing out of my connexion with this Institution. On accepting the responsible and important station which I now occupy, I came here, I am free to confess it, with strong, and what to me appeared almost insurmountable prejudices. Educated, and having always lived, and for many years taught Anatomy in a large city,

which is sometimes spoken of as the *punctum saliens* of Medical science, I had long been accustomed to regard it as the only pure fountain, of whose waters the traveller after Medical knowledge could safely drink; I had imbibed prejudices against Country Medical Schools, as they are sometimes termed in derision, in our large cities; and I could hardly make up my mind that sufficient inducements could be held out for Students of Medicine to pursue their studies in a remote and unpretending country village. A sufficiently extended experience has convinced me of my error, and aside from all interested or personal motives, I think myself entitled to say, with truth, after having fairly and dispassionately examined the relative advantages of each, that I should as soon think of advising you to follow Sadac in search of the waters of oblivion, as to subject you to the possibility of tasting the bitter waters of temptation to vice, abounding in our large and populous cities.

'Tis true, the city has her large and magnificent Hospitals, where the various forms of disease are to be observed in a class of patients for the most part of broken down or worn-out constitutions. Yes! she has her costly piles of marble and granite, reared by the philanthropist, as receptacles, and usually the last abodes of the miserable, the degraded, and the debauched. Yes! these monuments of munificence, so splendid without, so chaste in their architectural design, so attractive in their exterior, are filled with rotteness, disease, and death within.—There the student of Medicine has ample room for study, but if I mistake not, he will find more room for studying the weakness and degradation of human nature, than the correct treatment of disease, as ordinarily encountered in the better walks of life. That there are advantages in

such Institutions, I will not pretend to deny, but let the student from Ontario County spend a season in walking with the attending physician, around these wards—let him carefully note the routine of practice, and become familiar with it—let him then return home, (elated with prospects of success) and commence practice among the steady yeomanry of his native county, and he will soon find that he has yet to learn the proper adaptation of remedial means in a totally different class of individuals from those he has seen prescribed for in the wards of a hospital.

Again, 'tis true the city has her theatres, her balls, her masquerades, and her other places of amusement and dissipation, without number; and the disappointed hopes and broken heart of many a fond and anxious parent, as well as the blasted prospects of many a once fair youth, bear ample testimony to their fascinating influence.

Let us now turn to the advantages which we here enjoy. Removed as we are from those busy haunts where “men most do congregate;” insulated as we are during the collegiate course; encompassed by none of those temptations which are too apt to divert the attention of the youthful and inexperienced; supplied with every accommodation in the arrangement of our building; the necessary apparatus for chemical, and by the liberality of our Legislature, with materials for Anatomical purposes; each year the number of applications for surgical aid regularly increasing, and lastly, I may without any impropriety allude to each and every one of my colleagues, strengthened as we have been this session, all able and eager to impart to you instruction, I say with these and such advantages, it would be a strange anomaly indeed, if you could here fail to acquire a perfect knowledge of the profession of your choice.

I am aware that there is a halo shed around some of the distinguished men connected with the Medical Schools of our country, and that the influence of their names is as a tower of strength; but whilst we claim for Western New-York the share to which she is entitled, let us look around and examine the origin and source of a few of those who have, and who now are, reflecting honor upon their respective stations, and see if there is not an open field for some of those who now hear me. And first, let us enquire respecting the illustrious father of American Surgery, the "Hunter of America," the late lamented Dr. Phillip Syng Physick, a name familiar to the ear of every student; he was born in a little country village on the banks of the Delaware, and his name will be remembered so long as her tides shall continue to ebb and flow. Nathaniel Chapman is another name enrolled on the lists of fame, and to this day it is his public boast, that some forty years ago he was a poor, unfriended boy, and well may he exclaim "what am I now?"—we can answer, a glorious son of a noble sod; he too was born in a country village. The distinguished Dewees, and W. E. Horner, perhaps one of the best Anatomists this or any other country ever produced, are also the sons of village sires.

How many examples could I adduce in illustration of the success which has attended the efforts of individuals who have distinguished themselves amongst us; who unknown and unassisted have been the heralds of their own fame through the imperishable records they have presented to us of their talents, their genius, and their unwearied assiduity. Need I urge upon you then the necessity of perseverance if you would succeed; he who wins the prize must run the race, and though the race is not always to the swift, nor the battle to the strong, though those who

deserve success cannot always *command* it, yet their chance of failure is diminished in proportion to their merits. In this country the man that is determined to rise, cannot be kept down—the atmosphere of this nation is so buoyant it will carry him up in spite of all opposition; there are here no petty despots to frown upon him and chill his generous ardor; no inquisitorial tortures to cramp his abilities. We have seen a little printer's boy leaving his laborious occupation to enter as a sailor at the call of duty in the service of his country; we trace him on his return from sea, travelling on foot into the interior of our country, almost penniless and without resources; we next observe him settled down in a country village, as a student of medicine, with nothing but a laudable desire for fame to animate him in its pursuit; we heard of him for the first time, when he received his honors in the University of Maryland. It was not long before we perceived some faint traces of the rising sun of his genius, which soon burst forth upon our admiring gaze in all its native brightness; at the age of eight and twenty, we saw him take his stand among the great and good men of our country. He has been cut down in the prime of his days, in the flower of his manhood—and his mortal remains now mingle with their parent dust. In the language of his biographer, “had he fallen by a foeman's hand on the field of carnage, the butcher of his race in a quarrel of sordid interests, he would have passed from the world shrouded with its glories, mausoleums would have been erected to perpetuate his fame, eulogy have poured forth its pompous harangues, and poetry lavished its gorgeous decorations to blazon his memory.” But believe me, Gentlemen, due meed of praise has now been awarded, and the name of GODMAN, whilst it adds lustre to the land of his birth, will

always be dear in the remembrance of every student of anatomy—and catching the spirit of his bright example and his spotless life, we may here invoke the language of our native bard—

“ In the world’s broad field of battle,
 In the bivouac of life,
 Be not like dumb, driven cattle—
 Be a hero in the strife.

Lives of great men all remind us
 We can make our lives sublime,
 And departing, leave behind us
 Footsteps on the sands of time.

Let us then be up and doing—
 With a heart for any fate—
 Still achieving, still pursuing,
 Learn to labor and to wait.”

Further, I may remark to you as students of Geneva College, you have here incentives to study in all around you; amidst a thriving and industrious population none must be idle if he would command respect; and if you wish for illustration, look around this village—contemplate the mighty changes which industry and labor have here effected within a few short years; look over the now richly cultivated fields where but recently the untutored savage bounded fancy-free over his native wilderness; connect in your hours of recreation the *utile cum dulce*, and whilst wandering along the borders of our tranquil lake, at the same time that you may there stop to admire the productions of an Almighty hand, so beautifully fashioned in hill and dale, let instruction mingle in your hours of ease, and do not pass lightly over even the humble plant, or the neglected pebble, but carefully treasure them, and examine their nature and properties. Thus you may acquire a taste for the study of botany and mineralogy, and be likely

to cull something from the great storehouse of Nature, which will enable you to contribute some new and interesting facts to the treasury of knowledge, honorable to yourselves and useful to the community. Remember that he who would become useful to his fellow creatures and an ornament to our profession, must labor sedulously and untiringly in the great object of his mission; diligence, industry and perseverance are the great levers which can alone elevate him to usefulness and distinction. Let me exhort you then thus early to erect your standard bearing the Delphic motto, and if you nobly defend it against the temptations to idleness which may beset you, you will obtain a glorious victory in the cause of science and humanity.

“The proper study of mankind is man”—his physical as well as his moral structure, are objects of the deepest interest to the scientific enquirer; but a perfect knowledge of the former is indispensable to the physician, and without it he would be totally unqualified to minister at the bed of sickness, or to soothe the sufferings of the bed of death. The study therefore, in which we are about to engage together, is one of the most interesting and important to which the attention of the student of Medicine can possibly be directed; its aspect however chilling and repulsive at the first, will assume a different character as we shall proceed—it will be our object to make ourselves acquainted with the anatomical structure of the human frame, in order that the knowledge thus acquired, may enable us to minister with skill and judgement to the sufferings of our fellow creatures. In wandering through the mysterious mazes of Anatomical science, instead of viewing the dissection of the human body with loathing and disgust, we shall be compelled to admire the beauty and

the harmony which pervades the whole, and to admit the evidence that is every where afforded of a Supreme Intelligence. It is to me a source of pride to watch the course of the attentive and faithful student of Anatomy—we observe him over the rankling corpse, after the “silver chord” has been loosed, and the “golden bowl” been broken; and we see him too, whilst engaged in this study with proper and correct feelings, and with a view of lessening hereafter the sum of human suffering, taught to feel, that the spirit which once animated for good or for evil, the now senseless and useless clay, has ascended to the God who gave it.

It is our good fortune to live at a time and under circumstances peculiarly favorable to the pursuit of our science;—the gloomy mansions which formerly received her officiating ministers, are forgotten; a spirit of improvement has travelled down the path of time;—ignorance and superstition have been driven from the gates of the sepulchre, and the obstacles which at an early period presented themselves to the votaries of Anatomy, have been almost entirely removed. In proportion then as you may cultivate the opportunities that will now be afforded you, and in proportion as you may now devote your time and attention to its investigation, will you hereafter be rewarded by the enjoyment of those feelings which naturally flow from the remembrance of time well spent in the acquisition of knowledge calculated to enlarge your understandings, to improve your minds, and to widen your sphere of professional usefulness.

Whoever looks into the vast system which animated nature presents to the observation of the enquirer, cannot fail to be struck with admiration at the wonderful adaptation, arrangement and dependance of parts upon each

other, which produce the varied relations and functions of organic life.

From the bee, which sucks its honey from the nectar-cup, to the mole which ploughs in subterranean darkness, the earth, on which man walks in the proud consciousness of dominion, we meet with a corresponding beauty of mechanical structure, and intimacy of relationship in vital function.

As Anatomy presents to our view the great structure which Omnipotence has erected ; the various levers by which it acts ; the great reservoir and tributary streams by which its living waters are conveyed ; the glands by which it selects from the vast domain of nature the most nutritious particles which compose its diversified inhabitants, whether animal or vegetable — physiology, its kindred science, enters yet more deeply into the great mystery of our being. While the abode of the former is amid the gloom and desolation of the charnel-house, and her office that of exposing the mutilated wreck, once the bright tenement of intelligence and action, when the clay has sought its kindred element, and the spirit the presence of Him who gave it, the latter is seen dispensing her bounties in the temple of animated nature, uniting its varied materials into a perfect whole, and linking, if I may be allowed the expression, the structural dome with the immaterial agency which is to set forth its beauty, and to consecrate its walls.

It is possible, however, that when we come to demonstrate to you the different structures of the human system, and endeavor to make you acquainted with their anatomical relations to each other, you may find the recital dull and uninteresting — but when you come to the study of Physiology ; when you endeavor to make yourselves ac-

acquainted with the laws which govern the animal economy, the varied functions which are performed by the different organs with which dissection will make you acquainted, you will then be able to appreciate its importance; every structure which has been demonstrated by the knife, will now be seen as serving some important purpose; every atom will teem with life, and you will no longer look upon Anatomy, simply as the dry detail of bones and muscles, and nerves and vessels, but as the development of that machine, of which life is the grand source of perpetual motion and action.

If we contemplate the different structures which enter into its composition, and observe the various operations which are constantly going on in the human system, we shall see much to excite our wonder and admiration, and we shall be ready to exclaim in the language of the poet,

“ Strange that a harp of thousand strings,
Should keep in tune so long !”

Look to the bony structure, and observe the efficient joints by which it is connected; then turn to the muscular system by which these bones are moved at will; reflect on the processes of digestion, circulation and respiration—direct attention to the different organs of sense, to the eye, an organ susceptible of such nicety of impression, so exquisite in structure, and so admirably adapted to the very perfection of its purpose. Further, when we consider the grand agency and all-pervading influence of that subtle agent by which the whole of this system is kept in motion through the medium of the brain and nerves; when we reflect on the phenomena of sleep, and the degree of invigoration which the wearied system obtains from this kindly messenger of peace, and when we go still further, when we follow the body to the termination of existence,

and reflect on the phenomena of death, we are constrained to acknowledge that Omniscience alone could create and sustain a machine of such extensive powers. It is impossible to survey its variety of organs and functions, and the harmony with which all these contribute to the happiness and welfare of mankind, without discovering the traces of obvious design in every part of nature's work. Chance could not thus have adapted every organ to its function—every function unitedly to fill up the measure of the usefulness and happiness of man. The Supreme Intelligence alone, could have designed a work so noble and animated, and preserved a machine so complex.

I do not wish to detain you too long on such an occasion as this—but I will ask you to follow me whilst I here take a rapid survey over the different stages which characterize man's existence from the cradle to the grave, and I am much mistaken if it does not point a moral worthy of our serious and solemn consideration.

As in the days of David, the age of man is estimated at threescore years and ten—but only about one in eight reach that period, and about one-half who come into life, leave it again before their eighth year. It is correctly computed that three generations of men pass away in a century, and consequently the average of existence is thirty-four years.

Man's existence has been divided into several ages. Aristotle marked three divisions, that of *growth*,—that during which we apparently remain *stationary*, and that of *decline*. Hippocrates and others, recognized *seven ages*. Shakspeare, the great master-spirit of his time, adopted this latter division, when he put into the mouth of the melancholy Jacques, the celebrated apostrophe in which the progress of human life is so beautifully illustrated.

This division being universally recognized, we shall proceed to the consideration of the seven ages, not forgetting, that,

All the world's a stage.

The *first age*, then, or infancy, commences at birth, and ends at the seventh year—its moral and physical characters are familiar to all—feeble and helpless, it leans for protection and support on others—and who that has seen the glistening eye of maternal affection—who that has seen the exuberance of joy beaming from a mother's countenance, whilst the cherub lips of infancy are first learning to prattle forth that sacred name; or who that has witnessed the anxious and care-worn mother, watching with an intensity of emotion, which none but a mother can appreciate, whilst bending over the wan and wasted form of a beloved infant—I say, who that has witnessed such scenes, can for a moment doubt that the charge has been reposed upon an altar, around which are planted all the best affections, and all that is pure and lovely in human nature.

The *second age*, *pueritia*, or boyhood, is announced by the commencement of the second dentition, or at the age of seven years, and terminates at fourteen. This period is marked by striking peculiarities—the mind begins to expand; mimic battles are fought and won; the kite, the ball, the doll, alternately take up the intervals which are not occupied by those studies which it is now time to commence, in order to train the mind by education, by precept, and by example, along the paths of knowledge and of virtue,—and this is the age too, when by neglect or inattention, many are cast ashore upon the wreck-strewn beach of ignorance and vice.

The *third age*, *adolescence*, commences about fourteen, and ends at twenty-one. Here begins the uproar and the

tumult of existence. The size of the body being nearly completed, its powers of growth are directed into new channels—the voice becomes fuller and more sonorous—the volume of the body augments, and assumes the masculine character, whilst the moral changes are no less remarkable than the physical—the mind, the manners, and the habits, assume the character of the man. During this period we may look for the kindling of disease in those of hereditary predisposition, until which time they usually lie dormant; and if this be passed over, the extinction of the hereditary tendency is almost certain.

The *fourth age*, *Juventus*, or youth succeeds *adolescence*. From the age of twenty-five to thirty-five, very little change, either in the moral or physical condition of man, is to be observed. During this stage, arterial action predominates over every other, and hence the diseases during this period are acute and inflammatory. It is the age in which the most daring and important enterprises have been achieved upon the battle-field, and in which has been displayed the most splendid efforts of talent and genius in the halls of legislation and science. All the energies of nature seem to be concentrated with a view to the support and development of the intellectual faculties.

The *fifth age*—*Ætas Virilis*, or manhood. The spring-time and summer have passed, and we now reach the autumn of life—the glowing fervor of youthful imagination gives place to the full maturity of judgment;—‘thus far man’s journey has been upwards to the zenith of his strength and vigor; he now begins to descend into the vale of years, and as he approaches the nadir of existence, in vain may he attempt to cast anchor in the stream, for those who resist, as well as those who quietly yield, will be carried down upon its impetuous current.’ This is the period when the chronic forms of disease prevail.

The *sixth age*, *Senectus*, or old age. We have marked the changes in the up-hill of life, and now, all tends downwards in the *physical* structure of man;—the bony structure becomes more dense and solid; the muscles are less irritable; the cellular structure collapsed, and the skin becomes wrinkled; the hair turns grey, the heart and arteries are diminished in force; the venous system becomes congested, and the senses lose their wonted acuteness.

Ossification of the heart and arteries; apoplexy, and congestions of the important viscera, are the diseases which particularly attend this stage of life.

“Last scene of all
Which ends this strange, eventful history,
Is second childishness, and mere oblivion.”

Decrepitudo, or advanced age. What need we say of threescore years and ten! the teeth drop from the sockets, and the lower mounts over the upper jaw; the muscles relax as in infancy; the limbs yield to the burden which they had so long sustained with ease; and if mind is retained, the creature looks fondly up to the Creator, for that period to arrive, when “the wicked cease from troubling and the weary are at rest.” Involuntarily the young bow down with reverence at the footstool of the aged, the heavy-laden and the way-worn,—and think, in the beautiful language of Prior,

“Till by our countless sum of human woes oppress,
Hoary with cares, and ignorant of rest,
We find the vital springs relaxed and worn,
Compelled our common impotence to mourn.”

Thus we have traced man from the feebleness of infancy, through the vigor of youth, and the maturity of age, until we have divested him of nearly all the attributes of

humanity:—his physical, his moral, and his intellectual faculties departed or impaired—“ sans teeth, sans eyes, sans taste, sans every thing;” and thus we may proceed till all impression to external objects is banished, and man becomes a living automaton—an idiot,—standing like the presiding genius of desolation—a mighty ruin amid the splendor of surrounding glory. Finally, the winding-sheet, the coffin, the six feet of earth, and the tolling knell, remind *us*, that

“Time is fleeting—
And *our* hearts, though stout and brave,
Still like muffled drums are beating
Funeral marches to the grave.”

The moral we would inculcate, therefore, is embodied in the exquisite lines of Bryant—

“ So live, that when thy summons comes to join
The innumerable caravan, that moves
To the pale realms of shade, where each shall take
His chamber in the silent halls of death,
Thou go not, like the quarry slave at night,
Scourged to his dungeon ; but sustained and soothed
By an unfaltering trust, approach thy grave,
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams.”

